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BEEF STOCKER/YEARLING BUDGET — SUMMER PASTURE

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- *The beef yearling budget is useful for evaluating stocking options during the summer grazing season.*
- *The budget summarizes three key components: gross revenues, costs and net receipts.*

The following budget is designed to assist stocker/ yearling operations in determining the costs and revenues for a summer (May to September) stocking season. The budget may be used in its printed form, or downloaded as a Microsoft Excel spreadsheet at the extension portion of the Agriculture and Resource Economics website.

The beef yearling budget addresses operations that either purchase yearling cattle or run their own yearlings during the summer stocking season. Stocking operations convert grass to beef by grazing available forage. Certainly, the availability of forage and its quality is a very important aspect of the livestock enterprise. Poor quality forage or inadequate forage supplies result in a lower daily rate of weight gain, and the daily rate of gain is an important determinant of enterprise profitability. The ability of livestock to convert forage to weight gain is also determined by genetics, but livestock genetics are likely to be less important than the quantity and quality of forage supplies in the summer stocking operation.

Enterprise Budget Overview

In general, an enterprise budget summarizes three important components of the stocker operation: gross revenues, costs (ownership and operating) and the net receipts. Revenues are defined as the gross receipts that the stockers are able to generate at the end of the stocking period, and are the product of the animals' weight and market value. Subtracting the cost of stockers at the beginning of the summer grazing period (whether this is actual cost of purchased stockers/ yearlings or the market value of owned livestock) from gross receipts results in the gross margin of the enterprise.

Costs are divided into two components: operating costs and overhead costs. Operating costs include pasture lease, supplement feed, labor, fencing repairs, fuel, veterinary charges, transportation costs and other costs that vary with the number of stockers grazed. Overhead costs do not vary with number of stockers grazed,

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and include depreciation, taxes, insurance, and related overhead expenses (e.g., advertising, legal, accounting). Total costs are determined when the initial livestock purchase costs, operating costs, and overhead costs are summed together.

The difference between gross receipts and total costs are net receipts. The net receipts are the margin available to compensate the owner for capital invested, management and risk. Positive net receipts are needed to ensure the long term viability of the stocker operation.

Summer Stocker Budget Spreadsheet
The stocker budget spreadsheet is divided into three parts: an assumptions page lists the production and price assumptions used when calculating revenues and costs; a detailed expenses page provides for a variety of different inputs in the stocker budget, and a summary page collects revenue and expense information into a standard enterprise budget format. The remainder of this report describes each of these pages.

Production and Price Assumptions
The first budget page allows the user to enter price and production assumptions for the summer stocking enterprise. (The user can change the shaded cells to reflect their own values). Production assumptions are found on the left-hand side of the page, and include the number of steers and heifers involved in the enterprise, the expected daily gain (lbs. per day), the number of days on feed, and the expected death loss. The average beginning weights of steers and heifers may be entered in hundredweight (cwt) per head.

The right-hand side of the ***Production and Price Assumptions*** page includes assumptions on feed costs, labor charges and the interest rate on operating loans. Potential livestock feed costs include a charge for summer pasture (dollars per head per month), fall pasture, alfalfa fed as a forage supplement, grass hay, other roughages, grains and/or concentrates, protein supplement, and salt mineral. Labor charges are entered in terms of dollars per hour. Cattle prices, both for calves entering the summer stocking program and the expected prices at the end of the grazing period, are entered in terms of dollars per hundredweight on the lower right-hand side of the page.

The values entered on the assumptions page are important in determining the revenues and costs of the summer grazing operation. The next page on the budget spreadsheet, ***Detailed Stocker Assumptions***, calculates revenues and expenses based on the values of the assumptions page.

Detailed Stocker Assumptions
The detailed assumptions page is divided into sections focused on production assumptions, livestock feed, livestock medical expenses and implants, livestock supplies, marketing costs, and ownership costs.

Production Assumptions
The production assumptions section repeats the values from the ***Production and Price Assumptions***, and also calculates the ending weight of livestock by multiplying the average daily gain by the number of days on feed and adding that value to the beginning weight. The ending value of livestock (steers or heifers) is the ending weight multiplied by the expected price at the end of the grazing season.

Subsequent sections of the ***Detailed Stocker Assumptions*** are calculated by multiplying the quantity per stocker by the number of stockers to get the total quantity of input used. Multiplying the total quantity of inputs by the price per unit results in the total cost of the input purchase. Importantly, the spreadsheet user should enter the input quantity per stocker in the shaded cells. As an example, examine the livestock feed subsection of the spreadsheet. The summer pasture expense is listed as the seventh entry in the subsection, and is measured in the number of days (123 days). Multiplying 123 days by the number of stockers yields the total number of summer pasture days charged to the enterprise. Multiplying the total pasture days by the charge per day generates the total summer pasture charge. The total value of all feeds is summed at the bottom of the section on the line listed as *Subtotal Livestock Feed.* The *Livestock Medical and Implants* subsection includes vaccinations, medical supplies and miscellaneous medicines. *Livestock Supplies* includes feeding supplies, tack, ear tags, and other supplies, while the subsection titled *Marketing* includes freight charges, commissions, brand inspection, health inspection, and hedging expenses. The remaining direct costs include are labor costs and other miscellaneous charges (e.g., repairs). Operating capital invested is the sum of these direct expenses; the operating interest charge is the operating interest rate multiplied by the sum of all direct expenses.

Ownership costs are summarized in the property and ownership costs section at the bottom of the page. The

property and ownership costs include a per head charge for depreciation, taxes insurance, and general overhead. The total ownership costs, and the direct costs listed above, are summarized in the next page of the spreadsheet, the ***Budget Format.***

Budget Format

The ***Budget*** *Format* summarizes and calculates gross revenues, direct costs, and net receipts for the summer stocker operation both on a per head and a total herd basis. All values presented on the page are linked to the values inputted on the ***production and Price Assumptions*** page and the ***Detailed Stocker Assumptions*** page. The uppermost portion of the page summarizes the net receipts and subtracts the cost of livestock purchased (or raised) to return the gross margin. The second portion of the page reflects the operating and ownership costs. The page's bottom line is the net receipts, which are calculated as the total operating receipts minus the costs of livestock, operating costs and overhead costs.

Summary

The previous budget outlines potential revenues and costs for a summer stocker/yearling enterprise, and the budget is available online at the Department of Agricultural and Resource Economics website in the extension publications section. The budget is intended as a guideline, and stockmen are encouraged to input their own production practices, cost information and revenue assumptions. In addition, the availability of forage and its quality is a very important aspect of the livestock enterprise. Poor quality forage or inadequate forage supplies result in a lower daily rate of weight gain, and the daily rate of gain is an important determinant of enterprise profitability. The ability of livestock to convert forage to weight gain is also determined by genetics, but livestock genetics are likely to be less important than the quantity and quality of forage supplies in the summer stocking operation.